INTELLECTUAL PROPERTY, TRADITIONAL KNOWLEDGE, AND NATIVE BIODIVERSITY: CONVENTION AND PROGRESSION IN THE *TRANS-PACIFIC PARTNERSHIP*

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The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (**Trans-Pacific Partnership** *or* **Partnership***) is a major multilateral trade agreement between Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam that entered into force in December 2018. The Partnership, like many other bilateral, regional, and trans-regional trade treaties that have been enacted since the mid-1990s, is polemical, due in large part to its perceived effects on small scale agriculture, native biodiversity, and local and Indigenous peoples. Civil society criticisms have centred especially on how the Trans-Pacific Partnership's provisions on intellectual property might encourage the privatisation of plants, seeds, and other genetic resources at the expense of customary practices. The present article analyses these provisions, while also discussing the treatment of traditional knowledge in the Partnership, which is relatively progressive in comparison to prior free trade agreements. The article concludes by deriving lessons that civil society activists, local and Indigenous communities, and domestic authorities could derive from the Trans-Pacific Partnership, towards the end of identifying policy space for the protection of traditional knowledge and native biodiversity.*

I INTRODUCTION

Throughout the course of negotiations that led to the signing of the *Comprehensive and Progressive Agreement for Trans-Pacific Partnership* (**Trans-Pacific Partnership** or **Partnership**), a multilateral trade agreement that entered into force in 2018, civil society protests in several member countries railed against the perceived effects of the treaty on small scale agriculture, native biodiversity, and local and Indigenous peoples. The tensions that characterised these manifestations had similarly underpinned decades of criticism of prior trade agreements, dating to the *Agreement on Trade-Related Aspects of Intellectual Property Rights* (**TRIPS**) of the World Trade Organization (1995).

Subsequently, a series of bilateral and regional accords continued to provoke social unrest, culminating with the Trans-Pacific Partnership and the correspondingly expansive *Regional Comprehensive Economic Partnership* (2020).[1] While the controversy that these commercial treaties have provoked generally arises out of dissatisfaction with the globalised neoliberal economic model, the potential disruption of ancestral forms of agricultural production and uses of native biodiversity are particularly polemical issues.

Civil society activism in this space has specifically targeted trade agreements that require member countries to implement domestic intellectual property laws that are consistent with the 1991 Act of the *Union for the Protection of New Varieties of Plants* (**UPOV**; 1991). This Act provides a mechanism through which plant breeders can claim exclusive legal rights to new plant varieties, enabling the formation of temporary commercial monopolies over the production, reproduction, and sale of these plants. For decades, critics have derided the UPOV model as detrimental to small-scale traditional agricultural production, which remains significant for cultural reification and provides the basis for food and livelihood security in places where local and Indigenous peoples rely on the regular use and circulation of native crops and plants. The international not-for-profit organisation GRAIN conceptualises the problem as the privatisation of seeds, because intellectual property and related legal regimes tend to favour large-scale commercial production to the detriment of intergenerational practices of seed conservation, utilisation, and exchange by local and Indigenous peoples.[2]

In contrast to mandating adherence to certain intellectual property standards, free trade agreements do not require parties to join other international treaties that are designed to enable local and Indigenous peoples to better manage, and to benefit from, biodiversity and associated traditional knowledge. The most prominent of these treaties are the *Convention on*

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[1] Note that the Regional Comprehensive Economic Partnership was signed in 2020 but at the time of writing had not yet entered into force. For an overview of the criticisms that have been launched against the TRIPS Agreement, see Carlos M Correa, *Intellectual Property Rights, the WTO and Developing Countries: The TRIPS Agreement and Policy Options*. (Zed Books, 2000).

[2] 'Asia Under Threat of UPOV 91', *GRAIN* (Article, 3 December 2019) <https://grain.org/en/article/6372-asia-under-threat-of-upov-91>.

Biological Diversity (**CBD**; 1993) and its *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization* (**Nagoya Protocol**; 2014), and the *International Treaty on Plant Genetic Resources for Food and Agriculture* (**Plant Treaty**; 2004). While far from perfect, these 'access and benefit sharing'[3] agreements require member countries to adopt national legal and policy frameworks to ensure that native biodiversity and traditional knowledge are not misappropriated. The CBD, Nagoya Protocol, and Plant Treaty further aim to protect the rights of local and Indigenous peoples in accordance with the internationally-agreed principles of prior informed consent and benefit sharing.[4]

Given that the Trans-Pacific Partnership expressly endorses the UPOV Convention but not the CBD, the Nagoya Protocol, or the Plant Treaty, it is not surprising that environmental and Indigenous rights activists sought to derail negotiations towards this regional trade agreement. Civil society concerns were compounded by the fact that the United States, Japan, and Singapore had initially proposed a clause that would require parties to the Partnership to make patents available for inventions involving plants and animals.[5] While the UPOV Convention provides an international framework for the protection of plant varieties via plant breeders' rights, patents are often used to claim rights related to transgenic plants and animals.

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[3] Access and benefit sharing refers to the way in which 'genetic resources', that is, materials pertaining to or derived from natural biodiversity, may be obtained, and how the benefits that result from their use should be shared between the people or countries using the resources and the people or countries that provide them. 'Introduction to Access and Benefit Sharing', *Secretariat of the Convention on Biological Diversity* (Brochure, 2010) <https://www.cbd.int/abs/infokit/brochure-en.pdf>.

[4] Kamalesh Adhikari, 'Reconceptualising Access: Moving Beyond the Remits of International Biodiversity Laws' in Charles Lawson and Kamalesh Adhikari (eds), *Biodiversity, Genetic Resources and Intellectual Property: Developments in Access and Benefit Sharing* (Routledge, 2018).

[5] 'Updated Secret Trans-Pacific Partnership Agreement (TPP) – IP Chapter (second publication), *WikiLeaks* (Blog Post, 16 October 2014), art QQ.E.1(3), <https://wikileaks.org/tpp-ip2/>.

The possibility that the Trans-Pacific Partnership would enable more widespread commercialisation of agricultural biotechnologies was met by local protests against genetically-modified seeds and foods, in countries including Chile,[6] Malaysia,[7] and Aotearoa New Zealand.[8] More broadly, the negotiation process provoked contentious reactions to the speculation that the Partnership, and neoliberal approaches to transnational relations in general, might further marginalise ethnic minority and Indigenous communities. For instance, Māori activists in New Zealand argued that the special protections they enjoy under the Treaty of Waitangi were directly threatened by the trade deal.[9]

In the context of this history of activism against trade treaties, the present article analyses key provisions of the Trans-Pacific Partnership that are relevant to the protection of local and Indigenous peoples' traditional knowledge and practices in relation to agricultural production and biodiversity conservation. In so doing, the article critically assesses the provisions of the agreement's 'intellectual property' and 'environment' chapters. These chapters contain provisions designed to regulate a common set of biological objects, including plants, seeds, and other genetic resources. Furthermore, both of these chapters provide a basis to identify the policy space that countries may require for the creative formation of domestic legislative and regulatory frameworks on plant variety protection, patent examination, traditional knowledge protection, and access and benefit sharing related to the utilisation of plants, seeds, and other genetic resources.

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[6] 'Guardadora de Semillas Explica Por Qué Está Contra el TPP 11: "Es un Nuevo Colonialismo"', *El Mostrador* (Article, 2 April 2019) <https://www.elmostrador.cl/noticias/pais/2019/04/02/guardadora-de-semillas-explica-por-que-esta-contra-el-tpp-11-es-un-nuevo-colonialismo/>.

[7] 'New Trade Deals Legalise Corporate Theft, Make Farmers' Seeds Illegal', *GRAIN* (Article, 18 July 2016) <https://grain.org/article/entries/5511-new-trade-deals-legalise-corporate-theft-make-farmers-seeds-illegal>.

[8] Kirsty McMurray, 'Protesters Join Global Call Against Monsanto', *Stuff* (online, 27 May 2013) <http://www.stuff.co.nz/taranaki-daily-news/8719648/Protesters-join-global-call-against-Monsanto>.

[9] Corinne David-Ives, 'New Transnational Neoliberal Frameworks and Indigenous Peoples: Māori Response to the Trans-Pacific Partnership in New Zealand' (2020) 23 *Cultures of the Commonwealth* 109.

In prior works, Jefferson (2020) argued that countries could pursue a strategy of 'compliance with resistance' when implementing obligations under free trade agreements at the national level.[10] This notion, which refers to actions that countries can take to uphold their treaty obligations while simultaneously exploiting gaps in dominant legal regimes to generate alternative, local approaches to agroeconomic and environmental governance, remains relevant following the adoption of the Trans-Pacific Partnership. The diverse biocultural realities of Partnership member countries continue to require space for the formation of domestic laws that both uphold international commitments and are responsive to local needs.

II INTELLECTUAL PROPERTY, PLANT VARIETIES, AND INDIGENOUS RIGHTS

The negotiations during which the Trans-Pacific Partnership was developed formally commenced in February 2008. The secrecy and lack of transparency with which initial talks were conducted drew widespread criticism.[11] Opponents of the Partnership were partially vindicated by the release of the agreement's draft intellectual property chapter by WikiLeaks in October 2014. The preliminary chapter on intellectual property contained several provisions that confirmed civil society organisations' concerns, including the requirement that all parties ratify or accede to UPOV 1991[12] and the aforementioned mandate that members 'shall make patents available for inventions for plants and animals'.[13] Notably, however, the text alternately proposed an exclusion from patentability for plants and

[10] David J Jefferson, 'Compliance with Resistance: How Asia Can Adapt to the UPOV 1991 Model of Plant Breeders' Rights' (2020) 15(2) *Journal of Intellectual Property Law & Practice* 1012; David J Jefferson, 'Plant Breeders' Rights Proliferate in Asia: The Spread of the UPOV Convention Model' in Kamalesh Adhikari and David J Jefferson (eds) *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia* (Routledge, 2019).

[11] Sasha Maher, 'Behind Closed Doors: Secrecy and Transparency in the Trans-Pacific Partnership Trade Negotiations' (2016) 13(2) *Sites: A Journal of Social Anthropology and Cultural Studies* 187.

[12] 'Updated Secret Trans-Pacific Partnership Agreement (TPP) – IP Chapter' (second publication), *WikiLeaks* (Blog Post, 16 October 2014), art QQ.A.8(c), <https://wikileaks.org/tpp-ip2/>.

[13] Ibid art QQ.E.1(3).

animals other than microorganisms, which all parties to the negotiations other than the United States, Japan, and Singapore endorsed.[14] Consistent with the TRIPS Agreement,[15] this alternative proposal would allow parties to provide intellectual property protection for plant varieties under either existing patent laws or *sui generis* legal frameworks designed by lawmakers at the national level.

In its enacted form, the intellectual property chapter of the Trans-Pacific Partnership generally reproduces the terms of the TRIPS Agreement, allowing plants to be excluded from patentability. However, unlike TRIPS and the initial drafts of the Partnership, the final agreement mandates that members provide intellectual property protection for inventions that are derived from plants under their national patent laws.[16] The meaning of 'derivation' is not provided in the treaty, so presumably this concept is left to domestic lawmakers to define. The Partnership further requires parties that are not currently members of the UPOV Convention to ratify or accede to the 1991 Act.[17] Countries are afforded a brief transition period in which to pursue UPOV membership, amounting to three years for Brunei Darussalam[18] and four years for Malaysia[19] and Mexico.[20]

Meanwhile, the agreement grants special concessions to Aotearoa New Zealand, allowing the country to elect to join UPOV 1991, or adopt a *sui generis* plant variety rights system that 'gives effect to UPOV 1991' within three years of the date of entry into force of the Partnership.[21] The difference between these options is subtle, and it is unclear who would

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[14] Ibid art QQ.E.1(ALT 3).

[15] See *Agreement on Trade-Related Aspects of Intellectual Property Rights*, signed 15 April 1994, entered into force 1 January 1995, art 27.3(b).

[16] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018, art 18.37(4).

[17] Ibid art 18.7(2)(d).

[18] Ibid art 18.83(4)(a)(i).

[19] Ibid art 18.83(4)(b)(iv).

[20] Ibid art 18.83(4)(c)(i).

[21] Ibid annex 18-A(1).

be responsible for determining whether a prospective New Zealand plant variety rights law adequately gives effect to the 1991 Act of UPOV. If this were left to national lawmakers to decide, then New Zealand could potentially avoid implementing the most controversial provisions of the UPOV framework, such as restrictions on the saving and exchange of seeds by local and Indigenous cultivators.[22]

Furthermore, the Trans-Pacific Partnership specifically states that the intellectual property obligations which New Zealand has assumed under the agreement do not preclude the ability of the country to adopt 'measures it deems necessary to protect indigenous plant species in fulfilment of its obligations under the Treaty of Waitangi'.[23] The exception may have been prompted by a claim that prominent Māori individuals and groups lodged before the Waitangi Tribunal [24] in 2016. [25] While the New Zealand government's lack of consultation with *rūnanga* and *iwi* in developing this exception should be understood as a procedural failure under the Treaty of Waitangi framework, the express exemption from the UPOV 1991 obligation has been interpreted as a positive outcome for Māori.[26]

Unfortunately, however, similar exceptions to the intellectual property requirements imposed by the Trans-Pacific Partnership were not recognised for parties other than

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[22] These provisions pertain to the scope of the breeder's right defined in UPOV 1991, which requires authorisation from the breeder to utilise propagating material and harvested material of protected plant varieties for most purposes, other than acts done privately and for non-commercial purposes, or for experimental purposes. *See International Convention for the Protection of New Varieties of Plants*, signed 2 December 1961, as Revised at Geneva on 10 November 1972, on 23 October 1978, and on 19 March 1991, arts 14, 15.

[23] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018. Annex 18-A(2).

[24] The Waitangi Tribunal is a standing commission of inquiry that has exclusive authority to determine the meaning and effect of the Treaty of Waitangi. It makes recommendations on claims brought by Māori relating to legislation, policies, actions, or omissions of the New Zealand government that are alleged to breach the promises made in the Treaty of Waitangi. 'About the Waitangi Tribunal', *Waitangi Tribunal* (Web Page) <https://waitangitribunal.govt.nz/about-waitangi-tribunal/>.

[25] Amokura Kawharu, 'Process, Politics and the Politics of Process: The *Trans-Pacific Partnership* in New Zealand' (2016) 17(2) *Melbourne Journal of International Law* 286, 307.

[26] Ibid.

Aotearoa New Zealand. This means that all of the other countries that have joined the Partnership must ratify or accede to UPOV 1991. For several parties this requirement is inconsequential, given that at the time of signing Australia, Canada, Japan, Peru, Singapore, and Vietnam were already members of UPOV 1991. In contrast, for other countries, namely Brunei, Chile,[27] Malaysia, and Mexico, the obligation to adhere to the 1991 Act of UPOV is expected to have a significant impact on domestic policy, and by extension on local agricultural practices.

In this way, the Trans-Pacific Partnership may be viewed through the lens of older critiques of 'TRIPS-plus' free trade agreements, which sought to impose intellectual property obligations on countries over and above the relatively more flexible terms of the TRIPS Agreement.[28] Nevertheless, the policy space carved out by New Zealand provides an interesting example of how countries could resist the globalisation of intellectual property norms in favour of protecting local biodiversity and Indigenous peoples' interests.

III PATENT EXAMINATION, TRADITIONAL KNOWLEDGE, AND GENETIC RESOURCES

Although the intellectual property chapter of the Trans-Pacific Partnership is generally conventional, mirroring the terms of other recent bilateral and regional free trade agreements, its provisions on traditional knowledge are unusual. The Partnership appears to be the first major trade treaty to explicitly acknowledge 'the relevance of intellectual property systems and traditional knowledge associated with genetic resources to each other'.[29] Furthermore, parties to the agreement have undertaken a commitment to cooperate, through their national intellectual property agencies or other relevant institutions,

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[27] Note, however, that Chile had previously incurred the obligation to join UPOV 1991 through other trade agreements, including with the United States, Japan, and Australia. David J Jefferson, *Towards an Ecological Intellectual Property: Reconfiguring Relationships Between People and Plants in Ecuador* (Routledge, 2020) 66.

[28] See, eg, Peter Drahos, 'BITs and BIPs: Bilateralism in Intellectual Property' (2001) 4(6) *Journal of World Intellectual Property* 791.

[29] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018, art 18.16(1).

to enhance the understanding of issues arising out of the relationship between traditional knowledge and genetic resources.[30] These concepts are not defined in the Partnership, but their meaning may be imputed by referring to other international instruments including the CBD, Nagoya Protocol, and Plant Treaty, which are implicitly referenced in the trade and biodiversity section of the environment chapter.[31]

The primary form of cooperation that the Partnership describes is to 'pursue quality patent examination'.[32] This is relevant because over the past several decades, numerous patents in countries around the world have been challenged and, in some instances, rescinded based on evidence that the claimed invention was not novel, but in fact was directly informed by the ancestral knowledge of local or Indigenous people. Most of these cases of 'biopiracy'[33] have involved inventions that were analogous to or derived from customary uses of native plants and other genetic resources. Notorious examples include patent claims for fungicidal uses of the neem tree (*Azadirachta indica*),[34] utilisation of *Hoodia gordonii* as an appetite suppressant,[35] and extracts from Kakadu plum (*Terminalia ferdinandiana*) for cosmetic products.[36]

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[30] Ibid art 18.16(2).

[31] See ibid art 20.4 (stating that 'The Parties recognise that multilateral environmental agreements to which they are party play an important role, globally and domestically, in protecting the environment…').

[32] Ibid art 18.16(3).

[33] Biopiracy is a term that encompasses various forms of misappropriation of biological resources or traditional knowledge, including through intellectual property claims filed by people living outside of the communities in which a given resources or knowledge was obtained. Daniel Robinson, *Confronting Biopiracy: Challenges, Cases and International Debates* (Routledge, 2010) 21.

[34] Vandana Shiva, 'Special Report: Golden Rice and Neem: Biopatents and the Appropriation of Women's Environmental Knowledge' (2001) 29(1/2) *Women's Studies Quarterly* 12.

[35] Rachel Wynberg and Roger Chennells, 'Green Diamonds of the South: An Overview of the San-*Hoodia* Case' in Rachel Wynberg et al (eds) *Indigenous Peoples, Consent and Benefit Sharing* (Springer, 2009) 89.

[36] Daniel Robinson and Margaret Raven, 'Identifying and Preventing Biopiracy in Australia: Patent Landscapes and Legal Geographies for Plants with Indigenous Australian Uses' (2017) 48(3) *Australian Geographer* 311.

Although the Trans-Pacific Partnership does not create a mechanism to mitigate against the misappropriation of traditional knowledge, the agreement does mandate that its parties 'shall endeavour' to improve their patent examination processes.[37] The Partnership suggests that this could be achieved by implementing new protocols that patent examiners would need to follow, including the requirement to take publicly available traditional knowledge into account when determining prior art for inventions involving genetic resources.[38] National intellectual property offices could also permit third parties to lodge written submissions that would have the effect of undermining the novelty of inventions for which there is relevant traditional knowledge.[39] The Partnership further envisages that countries could utilise databases or digital libraries containing local and Indigenous knowledge in the course of patent examination, and that Partnership parties could cooperate in the training of patent examiners in the assessment of applications related to traditional knowledge.[40]

These provisions are noteworthy because they acknowledge that existing intellectual property frameworks should be modified to prevent the misappropriation of traditional knowledge about native biodiversity. Such misuse is relevant to international trade, which frequently involves the privatisation and commercialisation of plants, seeds, and other products derived from genetic resources originally obtained from local and Indigenous communities. However, it is unclear whether the Partnership's language on cooperation in the area of traditional knowledge will lead to any actual changes in national patent examination protocols.

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[37] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018, art 18.16(3).

[38] Ibid art 18.16(3)(a).

[39] Ibid art 18.16(3)(b).

[40] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018, arts 18.16(3)(c) and (d).

Rather than agreeing to reform their respective domestic legal and regulatory systems, the parties to the Partnership have merely stated that they 'shall endeavour to pursue quality patent examination',[41] a phrasing that does not impose any enforceable obligations.

Furthermore, it is important to recognise that the provisions on traditional knowledge that appear in the enacted version of the Partnership are significantly weaker than the language that some parties proposed during the negotiation process. The draft intellectual property chapter that was leaked in 2014 revealed that several countries endorsed a clause that would have read: 'The Parties recognize that the intellectual property system may be one possible means to protect the traditional knowledge associated with genetic resources and traditional cultural expressions of indigenous and local communities'.[42] Although this clause would not have required member countries to actually reform their domestic intellectual property laws, it might have encouraged some governments to develop *sui generis* legal frameworks designed to enable local and Indigenous communities to protect their knowledge and cultural expressions.

Another proposal that was advanced in the 2014 draft agreement but not included in the final text would have required that parties 'take appropriate, effective and proportionate measures to address situations of non-compliance' with laws that govern the access and use of genetic resources and associated traditional knowledge.[43] Although few of the countries that have ratified the Partnership have enacted national policy frameworks to regulate the access and utilisation of genetic resources and traditional knowledge,[44] the proposed clause potentially could have allowed parties that have enacted such laws to use trade sanctions under the Partnership as an enforcement tool.

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[41] Ibid art 18.16(3).

[42] 'Updated Secret Trans-Pacific Partnership Agreement (TPP) – IP Chapter (second publication), *WikiLeaks* (Blog Post, 16 October 2014), art QQ.E.23(4), <https://wikileaks.org/tpp-ip2/>.

[43] Ibid art QQ.E.23(7).

[44] These countries are Japan, Mexico, and Vietnam, in addition to certain Australian jurisdictions (notably Queensland and the Northern Territory). Peru has also implemented an access and benefit sharing domestic policy framework; however, this country has signed but not yet ratified the Trans-Pacific Partnership.

Finally, another provision that was proposed in the 2014 draft stated that 'each party may establish appropriate measures to respect, preserve and promote [alternatively, 'protect'] traditional knowledge and traditional cultural expressions'.[45] This language was proposed by all of the signatories to the Partnership except Canada and Japan, with no opposition noted in the 2014 document, so it is unclear why it was not adopted in the final agreement.

In addition to the provisions on traditional knowledge and genetic resources that appear in the intellectual property chapter, the Partnership contains a chapter on environmental issues. This is not entirely novel, given that prior free trade agreements including several treaties executed between the European Free Trade Association (**EFTA**) and other countries also included sections on trade and sustainable development.[46] Similarly, many of the commercial agreements that the United States has signed with trading partners include chapters on environmental protection.[47] It is possible that the language employed in the environment chapter of the Trans-Pacific Partnership was originally drafted by negotiators from the United States, prior to its withdrawal from the agreement in 2016. This can be deduced from the fact that Article 20.13 on Trade and Biodiversity of the Partnership's environment chapter is an almost verbatim reflection of the language that appears in Article 24.15 of the United States-Mexico-Canada Free Trade Agreement.

Notwithstanding its appearance in other international agreements, the trade and biodiversity provisions that were included in the Partnership are noteworthy for their recognition of the importance of respecting, preserving, and maintaining local and Indigenous communities'

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[45] 'Updated Secret Trans-Pacific Partnership Agreement (TPP) – IP Chapter (second publication), *WikiLeaks* (Blog Post, 16 October 2014), art QQ.E.23(6), <https://wikileaks.org/tpp-ip2/>.

[46] These include the free trade agreements in place between the EFTA and Montenegro, Bosnia and Herzegovina, the Central American States, Georgia, Philippines, Ecuador, Indonesia, Turkey, Albania, and Serbia. 'Trade and Sustainable Development in EFTA's FTAs', *European Free Trade Association* (Web Page) <https://www.efta.int/Free-Trade/Trade-and-Sustainable-Development-EFTAs-FTAs-520246>.

[47] These include the free trade agreements in place between the United States and Australia, Bahrain, CAFTA-DR, Chile, Colombia, Korea, Morocco, Oman, Panama, Peru, and the United States-Mexico-Canada Trade Agreement. 'Free Trade Agreements', *Office of the United States Trade Representative* (Web Page) <https://ustr.gov/trade-agreements/free-trade-agreements>.

knowledge and practices.[48] Furthermore, the Partnership also acknowledges that some member countries have made international commitments or adopted national measures relating to access and benefit sharing,[49] and it provides that parties 'shall cooperate to address matters of mutual interest', which may include exchanging information and experiences related to access and benefit sharing.[50] Finally, the Partnership states that given the importance of public participation and consultation in the development and implementation of policies concerning conservation and sustainable use of biodiversity, member countries 'shall make publicly available information' about their programmes and activities related to these issues.[51]

The explicit recognition of local and Indigenous peoples' interests in the conservation and sustainable use of biodiversity, the acknowledgement of the significance of public participation and consultation, and the commitment to cooperation among members of the Trans-Pacific Partnership should be regarded as indicators of the extent to which concerns over environmental issues have permeated international legal discourse. However, like the express inclusion of traditional knowledge in the intellectual property chapter, in practice it is unlikely that the Partnership's provisions on trade and traditional knowledge will actually operate to curtail international commercial activities between member countries.

These provisions could have been strengthened, for example, by mandating that parties to the Partnership adhere to the Nagoya Protocol and the Plant Treaty, and that they adopt national legal frameworks designed to give effect to these treaties' provisions on access, benefit sharing, and the rights of local and Indigenous communities, including in relation to their traditional knowledge. In theory, the inclusion of such a requirement would have been practicable, given that the Partnership explicitly requires adherence to other international agreements such as the UPOV Convention, as described above.

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[48] *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, opened for signature 8 March 2018, entered into force 30 December 2018, art 20.13(3).

[49] Ibid art 20.13(4).

[50] Ibid art 20.13(6).

[51] Ibid art 20.13(5).

Furthermore, the environment chapter of the Partnership requires that all parties 'shall adopt, maintain and implement laws, regulations and any other measures to fulfil its obligations under the *Convention on International Trade in endangered Species of Wild Fauna and Flora* (**CITES**)'. This provides a template for how a similar condition could be formulated in relation to the Nagoya Protocol and the Plant Treaty.[52]

It is logical that requiring parties to enact national legal regimes consistent with CITES would not have been controversial, given that all Partnership member countries had already joined this agreement by the time negotiations towards the Partnership began. However, like numerous other free trade agreements that have been signed in the late twentieth and early twenty-first centuries, the Partnership requires member countries to adhere to intellectual property treaties of which they were not previously members. This has not been the case for international access and benefit sharing agreements.

In order to truly realise its declared commitment to the protection of biodiversity and the interests of local and Indigenous peoples, the Trans-Pacific Partnership should have required member countries to join the Nagoya Protocol and the Plant Treaty. Such a requirement would have obligated members of the Partnership to implement domestic policies for the governance of access and benefit sharing, including the protection of local and Indigenous peoples' traditional knowledge. Although the scope of the Partnership is no longer negotiable, civil society activists should advocate for future trade agreements to require adherence to the access and benefit sharing treaties as a fundamental condition of membership.

IV CONCLUSION

The Trans-Pacific Partnership is largely a conventional trade deal, taking the form of an agreement whose intellectual property conditions have been essentially standardised over the past twenty-five years. Despite widespread civil society protests during negotiations, the enacted version of the Partnership requires member countries – with the notable exception of Aotearoa New Zealand – to adopt UPOV 1991 as a form of intellectual property for

[52] Ibid art 20.17(2).

plant varieties. Furthermore, although the controversial proposal that would have required signatories to make patents available for inventions involving plants and animals was dropped from initial drafts of the Partnership, the final version still requires member countries to provide protection for inventions that are derived from plants under their national patent laws. The net effect of these provisions is to 'ratchet up' intellectual property standards for agricultural innovations, mandating forms of protection that may not be appropriately tailored to local conditions.

On the other hand, the Trans-Pacific Partnership includes certain provisions that acknowledge concerns that civil society environmental and Indigenous rights advocates have long expressed, representing an advance over earlier free trade agreements. These include the commitment that member countries have made to improve their patent examination processes to avoid the misappropriation of traditional knowledge related to genetic resources, and the recognition of the importance of respecting, preserving, and maintaining local and Indigenous communities' knowledge and practices. It is also notable that New Zealand was able to carve out a special exemption to the requirement to join UPOV 1991, in addition to policy space to adopt measures the New Zealand government deems necessary to protect indigenous plant species in fulfilment of its obligations under the Treaty of Waitangi. While early drafts of the Partnership contained more ambitious language in relation to the protection of traditional knowledge and cultural expressions as intellectual property, the final version nevertheless demonstrates that possibilities for experimentation remain available when negotiating international commercial agreements.

Civil society activists, local and Indigenous communities, and domestic authorities could learn several lessons from the Trans-Pacific Partnership. Foremost, the experience of New Zealand in negotiating towards the Partnership demonstrates that activism by ethnic minority and Indigenous peoples can have a tangible effect on international trade agreements. However, this effect may depend on the provision of sufficiently robust legal protections for Indigenous rights at the national level, similar to the Treaty of Waitangi framework in New Zealand. The Partnership further demonstrates that goals related to safeguarding traditional knowledge and native biodiversity can be integrated into a globalised trade and intellectual property regime.

Future international commercial agreements should build upon the example of the Trans-Pacific Partnership by requiring signatories to adhere to and implement national laws consistent with the access and benefit sharing treaties, especially the Nagoya Protocol and the Plant Treaty. Although it is likely that local and Indigenous peoples' interests and the conservation of native biodiversity could best be advanced by curtailing the expansion of globalised neoliberal capitalism in favour of alternative economic models, the examples of policy space described in this article should be explored and exploited.